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Buy Now: [More choices...](#)Tools: Add to Work File: [Create new Work File](#) Vi w: [INPADOC](#) | Jump to: [Top](#) Go to: [Derwent...](#)☐ [Email this to a friend](#)Title: **JP2002190316A2: NONAQUEOUS ELECTROLYTIC SOLUTION AND LITHIUM SECONDARY BATTERY USING THE SOLUTION**Country: **JP Japan**Kind: **A2 Document Laid open to Public inspection**Inventor: **YASUKAWA SHIGEKI;
ISHIGAKI KENICHI;
KOTADO MINORU;
FUJII TAKASHI;**Assignee: **MITSUBISHI CHEMICALS CORP**
[News, Profiles, Stocks and More about this company](#)Published / Filed: **July 5, 2002 / Dec. 22, 2000**Application Number: **JP20000000390188**IPC Code: **H01M 10/40;**Priority Number: **Dec. 22, 2000 JP20000000390188**

Abstract:

PROBLEM TO BE SOLVED: To provide a new nonaqueous electrolytic solution which is superior with respect to safety, with flame retardance (self-extinguishability), high conductivity and electrochemical stability as optimal electrolytic solution for a lithium secondary battery, and to provide the lithium secondary battery using the solution.

SOLUTION: The nonaqueous electrolytic solution is that for the secondary battery, wherein lithium salt is dissolved in a nonaqueous solvent, and the nonaqueous solvent includes (a) cyclic carboxylic acid ester, (b) ester carbonate and (c) phosphoric acid ester, and is added by vinylene carbonate compound expressed as general formula (I) (wherein, R1, R2, R3, R4, R5, R6, R7 and R8 independently represent hydrogen atoms or a 1-4C alkyl group respectively), and/or by vinyl ethylene carbonate compound, expressed as general formula (II).

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Family: **None**Other Abstract: **None**

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ISHIGAKI KENICHI

KOTADO MINORU

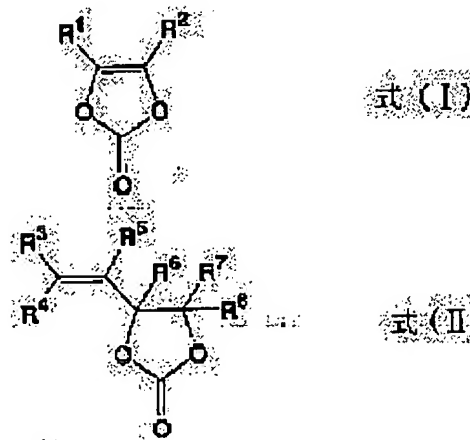
FUJII TAKASHI

(54) NONAQUEOUS ELECTROLYTIC SOLUTION AND LITHIUM SECONDARY BATTERY USING THE SOLUTION

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